

TORQUE TUBE CONVERSION KIT FOR MINI TITAN E325

INSTRUCTION MANUAL

Introduction

Thank you for purchasing the Thunder Tiger Torque Tube Conversion KIT for the mini Titan E325! An all-in-one Torque Tube and Carbon Shaft KIT for unbelievable crisp rudder response and 100% power transfer. Be all you can be, and throw any mad 3D maneuvers at the mini Titan E325.

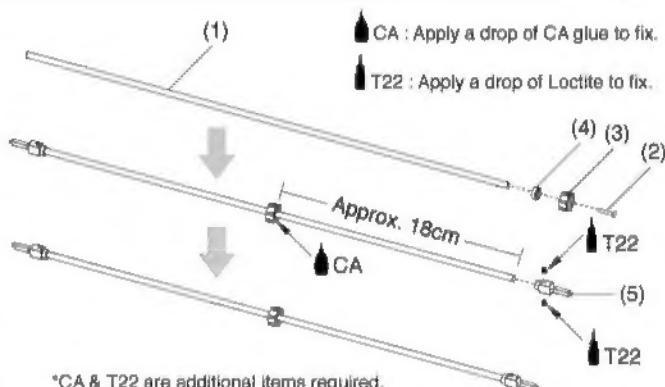
Assembly

Step1 Tail Drive Shaft

Pack No. A

No	Item No.	Description	Qty
1	BK1577	CARBON FIBER ROD d2"D4"359L	1
2	BK1584	T PIN d2"12	2
3	BK1578	SHOCK-AXIS RUBBER WASHER d8"D11"6	1
4	HMV840ZZY	BEARING (d4"D8"W3)	1
5	BK1569	TORQUE TUBE JOINT	2
6	HME3-3B	SET SCREW M3*3	4

1. Slip the SHOCK-AXIS RUBBER WASHER (#3) & BEARING (#4) onto the CARBON FIBER ROD, then insert the T PINs to both tips of the rod.
2. Glue the BEARING (#4) on the rod at approximately 18cm from either end.



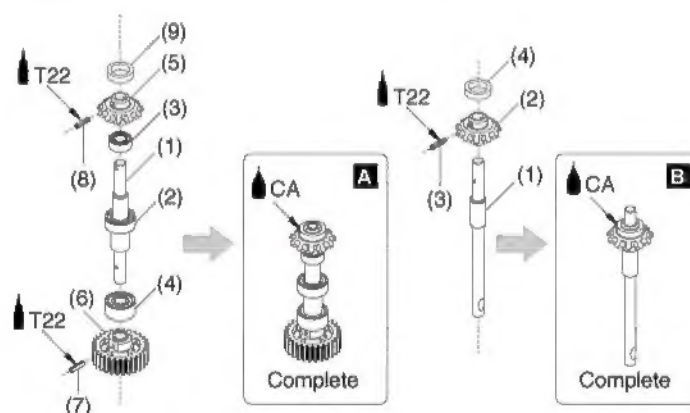
*CA & T22 are additional items required.

Step2 Tail Drive Gear Set/Tail Rotor Shaft Set

Pack No. B

Step	No	Item No.	Description	Qty
A	1	BK1568	TAIL DRIVE SHAFT, E325	1
	2	HMV840ZZY	BEARING(d4"D8"W3)	1
	3	HMV630ZZY	BEARING (d3"D6"W2.5)	1
	4	HMV830ZZY	BEARING (d3"D8"W4)	1
	5	BK1566	BEVEL GEAR 11T, E325	1
	6	BK1007	TAIL DRIVE GEAR 28T, E325	1
	7	HMU1-5B	SPRING SALES M1*5	1
	8	HMY1-5	PIN d1*5	1
B	9	BK1573	FLANGE RINGS, E325	1
	1	BK1576	TAIL ROTOR SHAFT, E325	1
	2	BK1566	BEVEL GEAR 11T, E325	1
	3	HMY1-5	PIN d1*5	1
	4	BK1573	FLANGE RINGS, E325	1

These two sets are factory pre-assembled by Thunder Tiger. Re-assemble according to the drawing as follows if necessary.

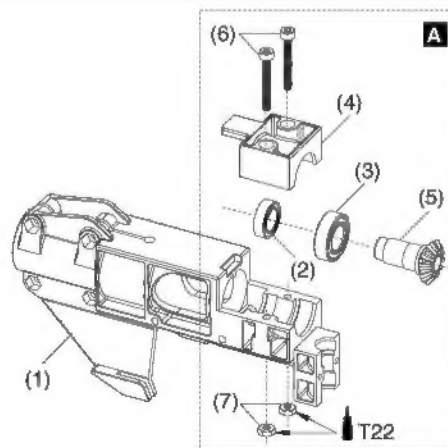


Step3 Tail Drive Unit

Pack No. C

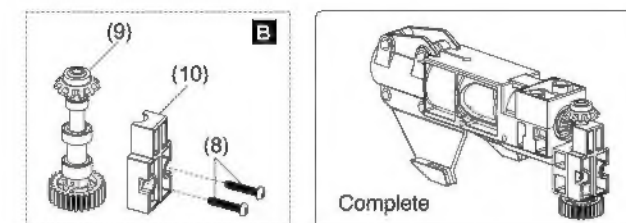
Step	No	Item No.	Description	Qty
A	1	BK1570	TAIL BOOM BRACKET, E325	1
	2	HMV1060ZZY	BEARING d6"D10"W3	1
	3	HMV1370ZZY	BEARING d7"D13"W4	1
	4	BK1572	BEARING BRACKET	1
	5	BK1567	BEVEL GEAR 11T, E325	1
	6	HMC2-16B	SOCKET SCREW M2*16	2
	7	HML2	NUT M2	2
	8	HNN2-10B	TAPPING SCREW M2x10L	2

1. Slip the BEARINGS (#2, #3) onto BEVEL GEAR then fit to TAIL BOOM BRACKET.
2. Secure but not over tighten the BEARING BRACKET to the Tail Boom Bracket. Ensure the BEVEL GEAR can be rotated smoothly.



Pack No. C				
Step	No.	Item No.	Description	Qty
B	9	BV1568	TAIL DRIVE GEAR SET, E325	1
	10	BK1571	FRONT BEARING BRACKET	1

1. Fit the TAIL DRIVE GEAR SET to TAIL BOOM BRACKET.
2. Secure but not over tighten the FRONT BEARING BRACKET to the Tail Boom Bracket. Ensure the TAIL DRIVE GEAR SET can be rotated smoothly.

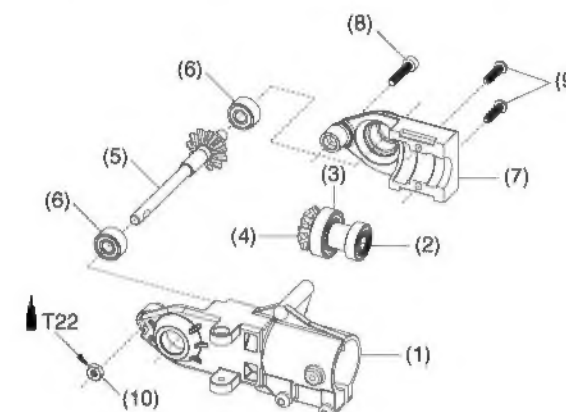


Step4 Tail Transmission Unit

Pack No. C

No.	Item No.	Description	Qty
1	BK1574	TAIL UNIT CASE SET, E325	1
2	HMV1060ZZY	BEARING d6"D10"W3	1
3	HMV1370ZZY	BEARING d7"D13"W4	1
4	BK1567	BEVEL GEAR 11T, E325	1
5	BV1576	TAIL ROTOR SHAFT, E325	1
6	HMV830ZZY	BEARING d3"D8"W4	2
7	BK1575	SIDE COVER, E325	1
8	HMC2-10B	SOCKET SCREW M2*10	1
9	HMJ2-10N	TAPPING SCREW M2x10L	2
10	HML2	NUT M2	1

1. Slip the BEARINGS (#2 & #3) onto the BEVEL GEAR.
2. Install the two BEARINGS (#6) into TAIL ROTOR SHAFT.
3. Fit the Drive Gear Set into the TAIL UNIT CASE SET then secure the SIDE COVER as shown.



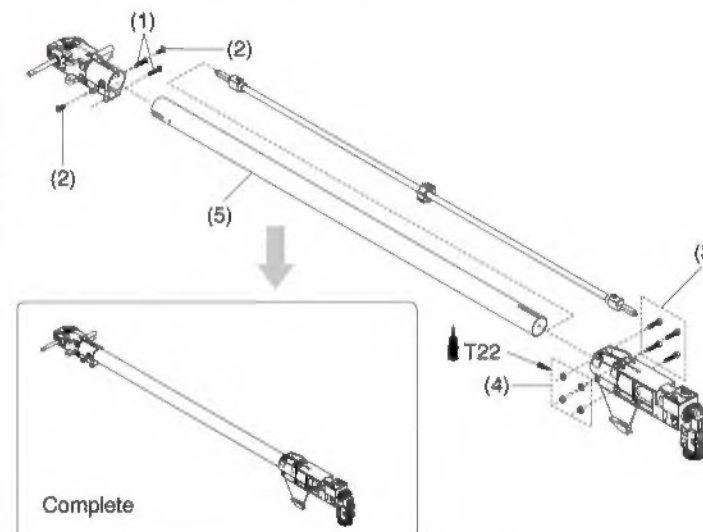
Step5 Tail Unit

Pack No. C

No	Item No.	Description	Qty
1	HNN2-10B	TAPPING SCREW M2x10L	2
2	HNN2-6B	TAPPING SCREW M2x6L	2
3	HMC2-10B	SOCKET SCREW M2*10	4
4	HML2	NUT M2	4
5	BK1004-1	TAIL BOOM 356" φ 14	1

1. Slip the Tail Drive Shaft gently into the TAIL BOOM.
(CAUTION: Over-stressing may damage the Tail Drive Shaft.)
2. Connect the TORQUE TUBE JOINT into the Bevel Gears of the Tail Drive Unit & the Tail Transmission Unit. Ensure they are assembled properly and match the holes on to the tail boom.
3. Refer to your E325 manual to assemble the Tail Rotor Set and slide the Tail Unit into the Main Frame of your E325.

Note: We strongly recommend to recheck/readjust upon completing assembly of the conversion kit.

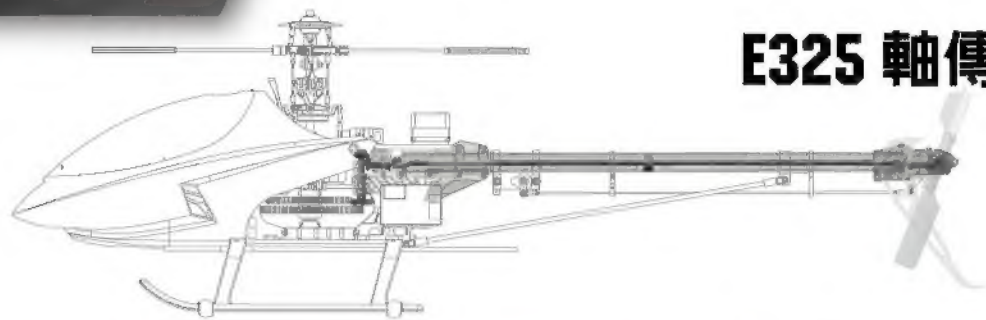


Spare Parts

PV1151 TAIL BOOM BRACKET	PV1152 BEVEL GEAR 11T	PV1153 TAIL DRIVE GEAR SET	PV1154 TORQUE TUBE END	PV1155 DRIVE SHAFT ROD d2"D4"359
PV1156 TAIL BOOM 356" φ 14, E325	PV1157 SHAFT DAMPER d8"D11"6	PV1158 TAIL UNIT CASE SET	PV1159 TAIL ROTOR SHAFT	PV1160 BEARING d7"D13"W4
PV1161 BEARING d6"D10"W3	PV1162 BEARING d4"D8"W3	PV1163 BEARING d3"D8"W4	PV1164 T PIN d2"12	

E325 軸傳動系統升級套件

使用說明書

mini
Titan
E325 3D Hall

簡介

感謝您選購雷虎科技專為 E325 所推出的軸傳動系統升級套件，本升級套件能讓您的 E325 爆發出近乎瘋狂的 100% 輸出動力能量！高強度輕質化碳纖維材質尾轉動主軸能讓您毫無顧慮地盡情飛行極限 3D 特技動作！

特點

1. 金屬傳動齒輪。
2. 碳纖維轉動軸。
3. 傘齒輪傳動設計，可執行熄火降落。
4. 快拆式高強度尾管設計，維修便利。
5. 全套件配備滾珠軸承（11組）。

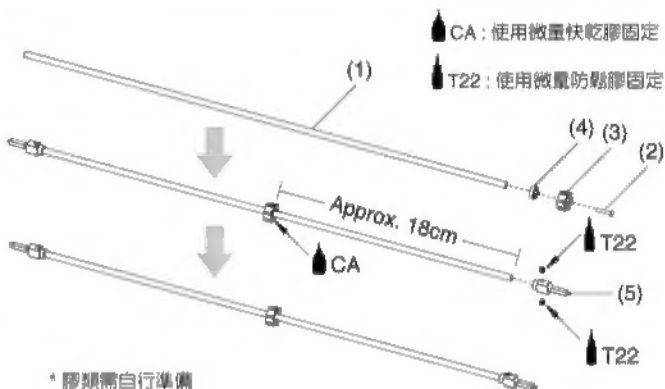
組裝步驟

步驟一、尾傳動軸

零件包編號 A

編號	料號	名稱	數量
1	BK1577	碳纖維 d2*D4*359L	1
2	BK1584	T型銷	2
3	BK1578	軸傳避震墊圈 d8*D11*6	1
4	HMV840ZZY	滾珠軸承 d4*D8*W3	1
5	BK1569	驅動軸接頭	2
6	HME3-3B	無頭內六角螺絲 M3*3	4

1. 先將軸傳避震墊圈（#3）及滾珠軸承（#4）穿套過碳纖維棒，再將兩個T型銷插入碳纖維棒兩端。
2. 使軸傳避震墊圈與碳纖維末端距離約18公分。

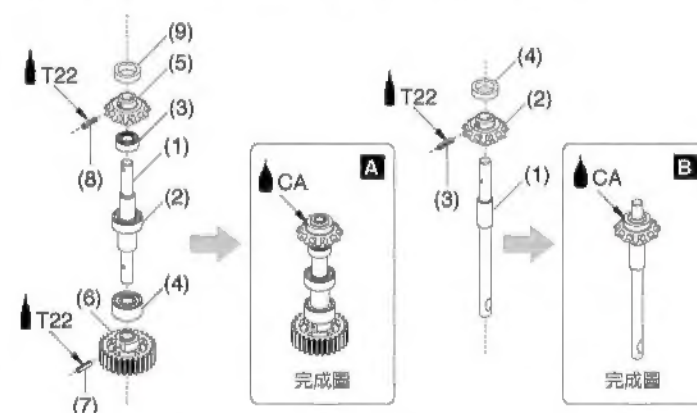


步驟二、尾傳動齒輪組/尾旋翼橫軸組

零件包編號 B

步驟	編號	料號	名稱	數量
A	1	BK1568	尾驅動軸	1
	2	HMV840ZZY	滾珠軸承 d4*D8*W3	1
	3	HMV630ZZY	軸承 d3*D6*W2.5	1
	4	HMV830ZZY	滾珠軸承 d3*D8*W4	1
	5	BK1566	傘齒輪 11T-1	1
	6	BK1007	尾驅動齒 28T	1
	7	HMU1-5B	彈簧銷 M1*5	1
	8	HMY1-5	插銷 d1*5	1
B	9	BK1573	輪緣套環	1
	1	BK1576	尾旋翼橫軸	1
	2	BK1566	傘齒輪 11T-1	1
	3	HMY1-5	插銷 d1*5	1
	4	BK1573	輪緣套環	1

原廠已完成此部份組裝。如需重新組裝可參考下圖順序進行。

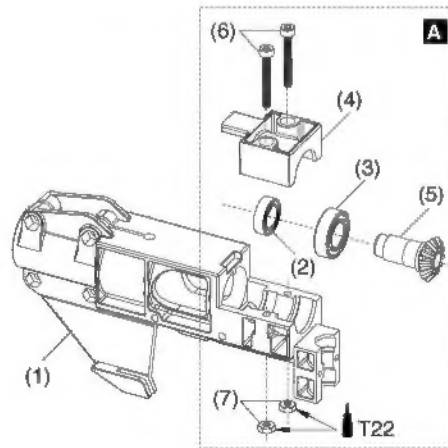


步驟三、尾傳動組

零件包編號 C

步驟	編號	料號	名稱	數量
A	1	BK1570	尾管固定座	1
	2	HMV1060ZZY	滾珠軸承 d6*D10*W3	1
	3	HMV1370ZZY	滾珠軸承 d7*D13*W4	1
	4	BK1572	尾管固定座上蓋	1
	5	BK1567	傘齒輪 11T-2	1
	6	HMC2-16B	內六角螺絲 M2*16	2
	7	HML2	六角螺帽 M2	2
	8	HNN2-10B	墊圈自攻螺絲(粗) M2*10L	2

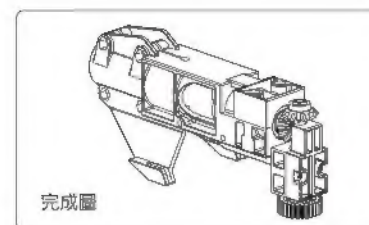
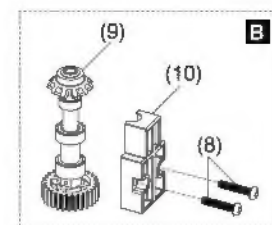
1. 將兩組滾珠軸承（#2及#3）套入傘齒輪後，安裝於尾管固定座。
2. 將尾管固定座上蓋組裝至尾管固定座上，勿過度鎖緊以確保傘齒輪組轉動順暢。



零件包編號 C

步驟	編號	料號	名稱	數量
B	9	BV1568	尾驅動齒組	1
	10	BK1571	尾管固定座前蓋	1

1. 將尾傳動齒輪組安裝於尾管固定座。
2. 將尾管固定座前蓋組裝至尾管固定座上，勿過度鎖緊以確保尾驅動齒輪組轉動順暢。

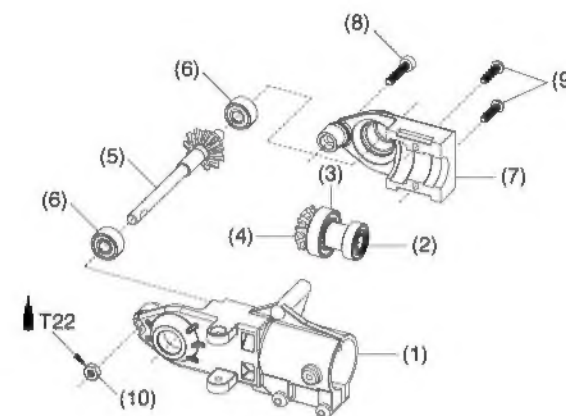


步驟四、尾部傳動組

零件包編號 C

編號	料號	名稱	數量
1	BK1574	尾座	1
2	HMV1060ZZY	滾珠軸承 d6*D10*W3	1
3	HMV1370ZZY	滾珠軸承 d7*D13*W4	1
4	BK1567	傘齒輪 11T-2	1
5	BV1576	尾旋翼橫軸組	1
6	HMV830ZZY	滾珠軸承 d3*D8*W4	2
7	BK1575	尾座側蓋	1
8	HMC2-10B	內六角螺絲 M2*10	1
9	HMJ2-10N	自攻螺絲 M2*10	2
10	HML2	六角螺帽 M2	1

1. 將兩組滾珠軸承（#2及#3）套入傘齒輪。
2. 尾旋翼橫軸組套上兩組滾珠軸承（#6）。
3. 將裝妥軸承之傘齒輪及尾旋翼橫軸組安裝於尾座上，並將尾座側蓋鎖上，如右圖所示。



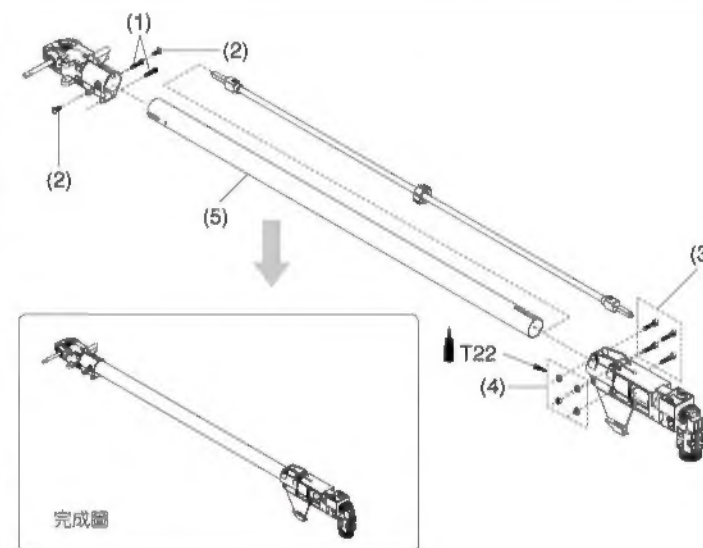
步驟五、尾部組裝

零件包編號 C

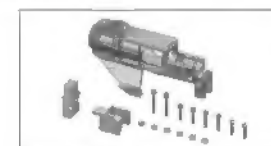
編號	料號	名稱	數量
1	HNN2-10B	墊圈自攻螺絲(粗) M2*10L	2
2	HNN2-6B	墊圈自攻螺絲 M2*6L	2
3	HMC2-10B	內六角螺絲 M2*10	4
4	HML2	六角螺帽 M2	4
5	BK1004-1	尾管 356*φ14	1

1. 請小心順暢地將步驟一之尾傳動軸組穿入尾管。
(注意：過度用力推擠將導致尾傳動軸組毀損)
2. 將尾傳動軸組上兩端的驅動軸接頭確實插入於尾傳動組及尾部傳動組上之傘齒輪中。將尾傳動組及尾部傳動組組裝於尾管上時，請確認兩者正確定位於尾管上之孔位。
3. 請參閱 E325 組裝說明書完成尾旋翼及尾管固定座之組裝。

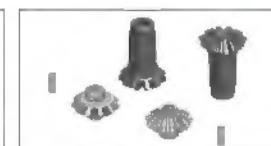
注意：安全起見，強烈建議您在進行飛行前，務必重新確認、調整陀螺儀及尾舵伺服機行程量。



配件



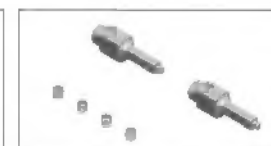
PV1151 尾管固定座



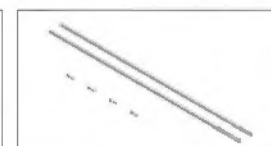
PV1152 傘齒輪 (11T)



PV1153 尾驅動軸



PV1154 傳動軸接頭



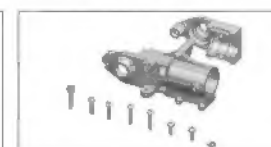
PV1155 碳纖維 (d2*D4*359L)



PV1156 尾管 (356*φ14)



PV1157 軸傳避震墊圈 (d8*D11*6)



PV1158 尾座



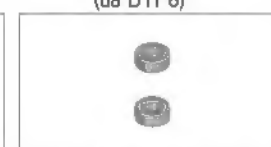
PV1159 尾旋翼橫軸組



PV1160 滾珠軸承 (d7*D13*W4)



PV1161 滾珠軸承 (d6*D10*W3)



PV1162 滾珠軸承 (d4*D8*W3)



PV1163 滾珠軸承 (d3*D8*W4)



PV1164 T型銷 (d2*12)